

Tektronix Solution for HDMI 1.4 Compliance Testing Supported By Panasonic ATC

Tektronix AWG7000B with Direct Synthesis Significantly Reduces Test Time

BEAVERTON, Ore., November 10, 2009 – Tektronix, Inc., a leading worldwide provider of test, measurement and monitoring equipment, today announced that the Panasonic Authorized Testing Center (ATC), which supports industry testing for High Definition Multimedia Interface®(HDMI®), has selected the Tektronix HDMI 1.4 compliance test solution. The Tektronix solution will enable Panasonic ATC to reduce the required man-hours to perform HDMI compliance testing and decrease the operational errors that can occur in the testing process and ultimately speed time to market for HDMI compliant products.

HDMI is a standard developed by leading electronics companies to promote digital AV equipment . It standardizes the interface between monitors and audio/video devices, such as set-top boxes, DVD players, game consoles, A/V receivers, and digital televisions (DTV), delivering a crisp, high-quality picture. When manufacturing and selling HDMI-compliant products, testing based on the Compliance Test Specification (CTS) must be conducted to ensure that products will interoperate with other HDMI devices. Panasonic ATC provides a reference testing environment for HDMI and performs compliance testing based on the standard.

The Tektronix industry-leading HDMI compliance test suite used by Panasonic ATC includes the following Tektronix instrumentation; AWG7122B arbitrary waveform generator, DPO70804 Oscilloscope, AFG3102 arbitrary waveform/function generator, DTG5334 data timing generator, along with HDMI plug-compatible fixtures. The AWG incorporates a direct synthesis approach, which outputs signals that mimic the effects of having passed through TTC modules and emulators through generation of complex waveforms. These waveforms simulate the stresses of degraded transmission paths to make a more realistic HDMI receiver testing environment, significantly improving the reproducibility of test results; while allowing for faster measurement and reduction of man-hours required for setup of complex HDMI compliance testing.

“We must demand the highest quality test and measurement instruments and solutions which are fundamental to ensure compliance with the HDMI Compliance Test Specification 1.4,” said Mr. Hiroyuki Iitsuka, Manager, Format Verification Laboratory, Technology Planning & Development Center, Panasonic Corporation . "The Tektronix direct synthesis approach dramatically increases measurement efficiency and ultimately supports the compliance of shipped products that implement the HDMI standard. We also expect this new Direct Synthesis solution could be beneficial for next generation standards including WirelessHD.”

HDMI 1.4, the latest version of the spec released in June 2009, offers significantly enhanced functionality by adding HDMI Ethernet and Audio return Channel (HEAC), two types of connector specifications for mobile and automotive use and additional video formats. In addition, HDMI 1.4 brings enhanced networking, expanded device support, and the transmission of 3-D video.

"Tektronix has been working closely with the HDMI LLC on test procedures and instrumentation support since the beginning of the specification,” says Dave Slack, Marketing Manager, Technology Solutions Group, Tektronix. "The Tektronix solution provides full compliance test support and addresses the electrical test requirements of the HDMI 1.4 test specification with a simple and reliable environment for measurement to speed compliance tests and improve time to market."

Tektronix HDMI Solutions

For designers and test engineers from consumer electronics manufacturers, semiconductor companies, and cable manufacturers, the Tektronix HDMI 1.4 compliant solutions consist of high-performance hardware and

integrated software, fully supporting all physical layer testing for source and sink devices as well as cables. They include DPO7000 series or DPO/DSA70000 series real-time oscilloscope, TDSHT3 HDMI compliance testing software HT3-DS HDMI Direct Synthesis software option, TekExpress HEAC automation compliance testing software, AWG5000/AWG7000B series arbitrary waveform generators, AFG 3000 series arbitrary waveform/function generators, DSA8200 sampling oscilloscope for time domain reflectometry (TDR), IConnect software for serial data network analysis, DTG 5000 series data timing generators, and testing fixtures that can support the latest modules such as HEAC - Types D and E.

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